UTC Project Information	
Project Title	DEVELOPMENT OF ULTRAHIGH PERFORMANCE CONCRETE WITH LOW-DENSITY FLEXIBLE FIBERS FOR BRIDGE APPLICATIONS
University	Texas A&M University/Texas Engineering Experiment Station
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Funding Source(s) and Amounts Provided (by each agency or organization)	IBT- ABC-UTC funds : $33,950 Match funds : $33,950
Total Project Cost	$ 67,900
Agency ID or Contract Number	69A3552348322
Start and End Dates	January 1, 2025 – Active.
Brief Description of Research Project	Innovative Bridge Technologies (IBT) include the development and use of novel materials that offer improved strength, higher mechanical performance, and, perhaps most importantly, superior durability and service life. Ultrahigh performance concrete (UHPC) has all these characteristics and has been identified for use in bridge deck overlays and for construction, repair and retrofit of bridge girders. More recently, as featured in an IBT/ABC UTC webinar, the first bridge with a 100 % UHPC superstructure was constructed in Michigan. Most UHPC contains steel fibers to improve shrinkage resistance and fracture toughness. Replacing the steel fibers with organic fibers can greatly improve the strength-to-weight ratio and corrosion resistance of UHPC materials, making them even more attractive for bridge elements. However, steel fiber reinforcement of UHPC is still much more common than using organic fibers, and research studies of the UHPC with organic fibers are relatively rare and many open questions remain before this material can be confidently used for bridges. The project proposed here will supply important data on the microstructure-property relationships of organic fiber-reinforced UHPC, thereby advancing the body of knowledge about how this new material can be made with assured performance.

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	The outcomes will be tracked and reported once they are identified.
Impacts/Benefits of Implementation (actual, not anticipated)	The impacts will be tracked and reported once they are identified.
Web Links • Reports • Project website	https://abc-utc.fiu.edu/development-of-ultra-high-performance-concrete-with-low-density-flexible-fibers-for-bridge-applications/